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**ILLUSTRATIONS AND DESCRIPTIONS OF FOSSIL
MOLLUSCA CONTAINED IN THE PALEONTOLOGICAL
COLLECTIONS AT CORNELL UNIVERSITY**

BY

KATHERINE E. H. VAN WINKLE

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— * —

Harris Co.
Cornell Univ., Ithaca, N. Y.
U. S. A.

ILLUSTRATIONS AND DESCRIPTIONS OF FOSSIL
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NOTES AND ILLUSTRATIONS OF SOME TYPES OF WEST COAST
SPECIES DESCRIBED BY CARPENTER.

While recently arranging collections in the Paleontological Museum of Cornell University, the discovery was made of two forgotten types which belonged to the Jewett Collection, bought many years ago by Ezra Cornell.

In 1866, Carpenter* described in the *Annals and Magazine of Natural History*, five new species of mollusca, from material collected and sent him by Col. E. Jewett, from the Pleistocene of Santa Barbara, California. To explain what happened to those forms described by Carpenter we quote a note which follows the article describing the species: "Unfortunately, during the long interval which has elapsed between the transmission of the MS. and receipt of the proof, the types have been returned to the owner, and (with the remainder of Col. Jewett's invaluable collection of fossils) have become the property of a college in New York State. As they are packed in boxes, and at present inaccessible, I am unable to give the measurements; but the unique specimens were drawn on wood by Mr. Sowerby for the

* Carpenter, Philip P. On the Pleistocene Fossils collected by Col. E. Jewett, at Sta. Barbara, California; with Descriptions of New Species. *Ann. Mag. Nat. Hist.* 3rd Ser. Vol. XVII, pp. 274-278, 1866; *Smith. Misc. Coll.* 52, pp. 319-325, 1872.

Smithsonian Institution.—P. P. C., Montreal, Feb. 22, 1866.”

The “college in New York State” was Cornell University where the collection has remained since its purchase, referred to in Carpenter’s note. The finding of the two types offers occasion for their illustration inasmuch as they have not heretofore been figured. The species described as new were :

1. *Turritella Jewettii*,
2. *Bittium armillatum*—the type is stated by Bartsch to be in the U. S. N. M., Cat. No. 15653 and is figured by him in Proc. U. S. N. Mus., vol. 40, 1911, pl. 52, fig. 6.
3. *Opalia* (? *crenatooides*, var.) *insculpta*—type C. U. M. Cat. No. 4950.
4. *Trophon tenuisculptus*—type ; C. U. M. Cat. No. 4951.
5. *Pisania fortis*.

Dentiscala insculpta (Carpenter) 1866.

Pl. I. Figs. 10, 11.

Opalia (? *crenatooides* var.) *insculpta* Carpenter, Rep. Brit. Asso. Ad. Sci. for 1863, 1864, p. 660 ; Ann. Mag. Nat. Hist. 1866, 3rd ser., vol. XVII, p. 277. Reprint, Smith Misc. Coll. 1872, 252, p. 324.

Dentiscala insculpta Dall, Proc. U. S. Nat. Mus. 1917, vol. 53, p. 473.

Remarks 1863. “Like the C. S. L. form and *crenata*, but ribs closer, without spiral sculpture, sutural holes behind the basal rib.”

Original description.—“*O. testa O. crenatooides* simili ; sed costis radiantibus pluribus, xiii,—xvi., in spira validis ; anfr. ult. obsoletis ; sculptura spirali nulla ; punctis suturalibus minus impressis, circa fasciam basalem laevem postice, non antice continuis.

Hab. Sta. Barbara, Pleistocene, 1 sp. (*Jewett*).

Very closely related to *O. crenatooides*, now living at Cape St. Lucas, and, with it, to the Portuguese *O. crenata*. It is quite possible that the three forms had a common origin.”

The exterior of the shell of this type has been worn away except in the sutural region, hence the exact character of the longitudinal ribs cannot be described, however prominent impressions of each reveal fourteen ribs on the whorls.

Dimensions of type.—Height 14 mm. ; width of body whorl 7 mm.

This specimen has an original label which reads "Drawn by Sowerby for the SI."

Boreotrophon tenuisculpta (Carpenter) 1866.

Pl. I. Figs. 6-9.

Trophon tenuisculptus Carpenter, Rep. Brit. Ass. Ad. Sci. for 1863, 1864, p. 25 ; Ann. Mag. Nat. Hist., 3rd ser., vol. XVII, p. 277, 1866 ; Reprint Smith. Misc. Coll. 252, 1882, p. 324.

Not *Trophon tenuisculptus* Tryon Man. Conch. 1880, vol. 11, pl. 33, fig. 359 (after Kobelt, Küster, Conch. Cab. t. 76, f. 9.)

Trophon (Boreotrophon) tenuisculpta Arnold Mem. Cal. Acad. Sci. 1903, vol. III, p. 253.

Boreotrophon tenuisculptus Dall, Proc. U. S. Nat. Mus. 1902, vol. 24, p. 541.

Original Description.—"T. testa *T. Barvicensi* simili, sed sculptura minus extante ; vertice nucleoso minimo ; anfractibus uno et dimidio lævibus, apice acuto ; normalibus v., tumidis, postice subangulatis, suturis impressis ; costis radiantibus x.-xiv., plerumque xii., haud varicosis, angustis, obtusis ; liris spiralibus majoribus, distantibus, quarum ii.-iii. in spira monstrantur, aliis intercalantibus, supra costas radiantes undatim transeuntibus ; tota superficie lirulis incrementi, supra liras spirales squamosis, eleganter ornata ; canali longiore, subrecta, vix clausa ; labro acutiore, postice et intus incrassato, dentibus circ. v. munito ; labio conspicuo, lævi ; columella torsa.

Hab. Sta. Barbara, Pleistocene formation (*Jewett*).

This very elegant shell is like the least-sculptured forms of *T. Barvicensis*, from which it appears to differ in its extremely small nucleus. It is very closely related to *T. fimbriatulus*, A. Ad., from Japan, but differs in texture, and is regarded by Mr. Adams as distinct. It stands on the confines of the genus, there being a slight columellar twist, as in *Peristernia*."

Dimensions of specimens.—Height 16 mm ; max. width body whorl 8 mm. ; height 13 mm. ; max. width body whorl 7 mm.

There are two specimens of this species, on the original card, labelled "type."

Volvula cercadensis, n. n.

Not *Volvula cylindrica* Carpenter 1863, Rep. Brit. Ass. Ad. Sci., p. 647 ; 1865, Ann. Mag. Nat. Hist. 3rd ser., vol. XV, p. 179 ; 1872, Smith Misc. Coll. 252, p. 281.

Not *Volvula cylindrica* Smith, 1871, Proc. Zool. Soc., London, p. 738, pl. LXXV, fig. 29 (= *V. smithii* Pilsbry 1893. Man. Conch. XV, p. 233).

Volvula cylindrica Gabb 1873, Trans. Phil. Soc., n. s. 15, p. 246.

The name *Volvula cylindrica* used by Gabb in 1873 for a shell from Santo Domingo was previously used in literature and applied in 1863 by Carpenter to a recent species from Santa Barbara, California. His description at that time is too inadequate and would therefore be rejected but in 1865 he gave a full description of this species thus making the name valid from the latter date.

NEW SPECIES FROM THE EOCENE AT NEW CASTLE, VIRGINIA.

In a former number* of the Bulletins of American Paleontology, we published a few notes and descriptions of new species from Eocene localities in Virginia. The material had been collected on the 1st expedition of the *Ianthina* to the south, in 1897. Recently, (summer of 1920), Mr. Axel Olssen collected material from Newcastle, Virginia and more material from the '97 trip was found in the laboratory which had not been worked up. Both of these collections contained some interesting new things as well as a greater number of the old.

From the material we have revised and increased the list of species identified from Newcastle, Virginia and include the list in this article.

The species described are all from Newcastle, Virginia and are all of St. Maurice, Eocene age. The types or specimens figured are in the Paleontological Museum of Cornell University.

* Bull. Amer. Pal. 1919, vol. 8, No. 33, pp. 6-12.

PELECYPODA

1. *Anapteris regalis* Harris & Van Winkle.
2. *Anomia marylandica* Clark.
3. *Arca rhomboidella* Lea.
4. *Corbula aldrichi* Meyer.
5. *Corbula murchsoni* Lea.
6. *Corbula subengonata* Dall.
7. *Glycymeris idoneus* (Conrad).
8. *Leda cœlatella* Harris & Van Winkle.
9. *Leda cutelliformis* (Rogers).
10. *Leda parva* (Rogers).
11. *Leda potomacensis* Clark & Marten.
12. *Lirodiscus virginianus* n. sp.
13. *Macrocallista subimpressa* (Conrad).
14. *Mactropsis olssoni* n. sp.
15. *Ostrea sellæformis* Conrad.
16. *Pecten clarkeanus* Aldrich.
17. *Phacoides claibornensis* Dall?
18. *Phacoides pomilia* var. *smithi* Meyer.
19. *Pitaria ovata* (Rogers).
20. *Pteropsis harrisi* n. sp.
21. *Protocardia lenis* Conrad.
22. *Spisula paralis* (Conrad).
23. *Tellina papyria* Conrad.
24. *Venericardia planicosta* Lamarck var.

GASTROPODA

1. *Adeorbis novi-castris* Harris & Van Winkle.
2. *Adeorbis* ? *virginiensis* Harris & Van Winkle.
3. *Calyptrea aperta* (Solander).
4. *Calyptrophorus trinodiferus* Conrad.
5. *Crepidula lirata* ? Conrad.
6. *Latirus* sp.
7. *Levifusus* sp.
8. *Lunatia marylandica* (Conrad).
9. *Plejona petrosa* (Conrad).

10. *Pseudoliva vestuta* (Conrad).
11. *Ringicula dalli* Clark.
12. *Strepsidura subscalarina* Heilprin.
13. *Teinostoma lævis* (Meyer).
14. *Teinostoma subrotunda* Meyer ?
15. *Turritella clevelandica* Harris, var. Harris.

SCAPHOPODA

1. *Dentalium minutistriatum* Gabb.
2. *Dentalium thalloides* Conrad.

Genus LIRODISCUS Conrad

Lirodiscus virginianus n. sp.

Pl. I. Fig. 1.

Description.—Shell thick, subrectangular, umbones flattened; surface ornamented with prominent, concentric undulations; margin crenulated.

Long. 19 mm.; alt. 14 mm.

This species is of the *L. tellinoides* stock but differs from the typical specimens in the lack of the posterior sulcus and from all varying forms of that species in the less rounded, ventral margin, in this respect *virginianus* is more like *L. protractus* ? Dall. Meyer's figures of *protractus* show a greater production of the posterior end, as well as the margin entire. *L. smithvillensis* Har. is shorter and more rounded.

From material collected on 1st *Ianthina* Expedition, '97.

Genus MACTROPSIS Conrad

Mactropsis Olssoni n. sp.

Pl. I. Figs. 4, 5.

Description.—Shell moderately thin, triangular; posterior umbonal slope prominent, angulated, the sharpness of the angulation varies in different specimens, on the type specimen the slope is great enough to hide the posterior margin from an external, medial view; beaks high and full; posterior and anterior regions with large, well-marked areas, differentiated by indentations which extend from the beak to the margin of the shell. Exterior surface with prominent, regular, concentric striæ, which decrease in number and become more pronounced on the anterior and posterior, dorsal areas.

Long. 9 mm.; alt. 8 mm.

From material collected by Axel Olsson in 1920.

Genus **PTEROPSIS** Conrad

Pteropsis harrisi n. sp.

Pl. I, Figs. 12, 13.

Description.—Shell very thin and fragile, probably subovate in shape; surface covered with wavy, regular undulations which terminate, on the posterior margin a short distance anterior to the extremity of the margin, in a ridge which extends from the beaks ventrad; anterior dorsal portion inflated, bearing slight traces of the undulations.

The only specimen we have of this species has the ventral portion broken, the anterior margin is slightly crushed, giving that region an appearance of greater inflation than we believe it would normally have. The concentric sulci are very much like those of *P. lapidosa* Con.; *P. harrisi* may be only a variety of *lapidosa* or possibly the same species, but that can be decided only by more material.

The hinge of this species is so well preserved and being a right valve (the left valve only of the type of the genus having been figured) we believe it worthy an illustration. A small amount of matrix had to be left in the anterior region to act as support for the crushed portion of the shell above.

From material collected on the 1st *Ianthina* expedition in '97.

Genus **CORBULA** Bruguière

Subgenus **ANAPTERIS** Harris & Van Winkle

Anapteris Harris & Van Winkle, Bull. Am. Pal. 1919, Vol. 8, p. 7.

Description of right valve.—Shape and ornamentation as in the left valve, exhibiting on the posterior end the characteristic flare or wing. The ridge which bounds the wing has a narrow groove which extends along the posterior side of the ridge from the umbonal region to the posterior ventral margin, a correspond-

ing groove may or may not extend on the anterior side of the ridge ; valve convex.

Anapteris regalis H. & V. W.

Pl. 1. Figs. 2, 3.

TYPE : *A. regalis* H. & V. W., *l. c.* p. 7, pl. 1, figs. 1, 2, 3.

This new and peculiar corbuloid form was described from the left valve only. Finding in our later work on Newcastle, Va. material, two specimens of the right valve, we include the figure of one with those of new forms described in this article.

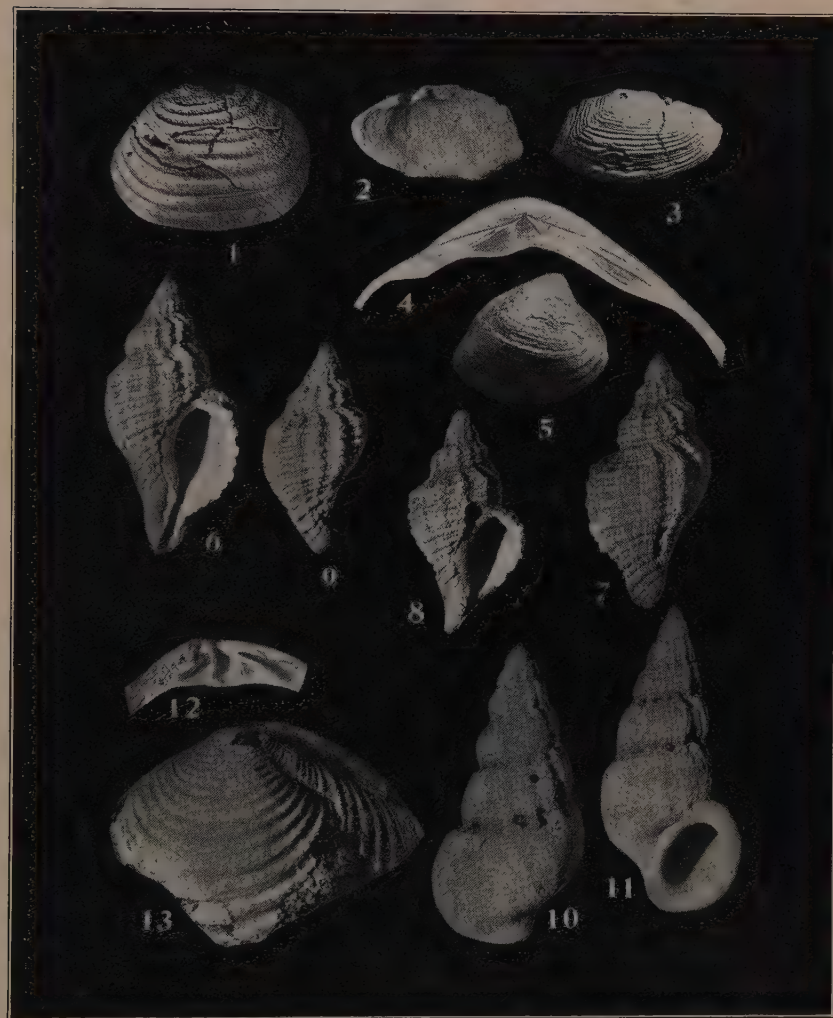
From material collected on 1st *Ianthina* Expedition in '97.

PLATE I

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CORRIGENDA

Bulletin 34, p. 71 (103), cut out *Antigona* (*Ventricola*) *calimorpha* Dall as extralimital. Not yet found in the Gulf of Mexico (Dall, 1921). Remove *pilula* Dall from synonymy with the above and refer to genus *Vesicomya*. Also extralimital.

Bulletin 36, p. 6, (352) 2d line, change *Volvula cyclindrica* to *Volvula cylindrica*.

ADDENDA

Bulletin 34, p. 26 (58). Under genus *Unio* add the following species : *musinus*, *alixus* and *sandrinus* Dall, Proc. U. S. N. Mus., 46, pp. 229-230, pl. 20, figs. 2, 4, 5, 6, 1914. Brackish water Upper Miocene or Pliocene, well near Alexandria, Louisiana, about 48 feet below the surface.

